| L<br>Number | Hits | Search Text   | DB  | Time stamp          |
|-------------|------|---|---|---------------------|
| 3           | 726  | array with interposer   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/11/30<br>15:37 |
| 10          | 26   | ("4710798"   "5281151"   "5360988"   "5367403"   "5367435"   "5375042"   "5378926"   "5381039"   "5399898"   "5400220"   "5434452"   "5436203"   "5450283"   "5523622"   "5635767"   "5640051"   "5652466"   "5654590"   "5661341"   "5672911"   "5710071"   "5734560"   "5763939"   "5773882"   "5777383"   "5786630").PN. | USPAT   | 2003/11/30<br>15:26 |
| 11          | 7    |   | USPAT   | 2003/11/30<br>15:27 |
| 12          | 18   | 5773882.URPN.   | USPAT   | 2003/11/30<br>15:29 |
| 13          | 2    | ("5672912").PN.   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/11/30<br>15:38 |
| 14          | 5    | ("4710798"   "5172303"   "5239198"  <br>"5281151"   "5521435").PN.  | USPAT   | 2003/11/30<br>15:38 |
| 15          | 15   | 5672912.URPN.   | USPAT   | 2003/11/30<br>15:38 |
| 16          | 17   | ("4341594"   "4948754"   "5506756"  <br>"5554887"   "5672912"   "5677576"  <br>"5683942"   "5814894"   "5834844"  <br>"5844304"   "5851911"   "5886415"  <br>"5925931"   "5977641"   "6043109"  <br>"6072236"   "6117539").PN.  | USPAT   | 2003/11/30<br>15:41 |
| 17          | 6    | ("3832769"   "4249302"   "4811081"  <br>"5010038"   "5225966"   "5502889").PN.  | USPAT   | 2003/11/30<br>15:46 |
| 18          | 17   | 5886415.URPN.   | USPAT   | 2003/11/30<br>15:47 |
| 19          | 17   | ("3881799"   "5148265"   "5207887"  <br>"5307561"   "5354205"   "5412539"  <br>"5518964"   "5629837"   "5668405"  <br>"5706174"   "5729051"   "5886415"  <br>"5896271"   "5925931"   "6121688"  <br>"6157084"   "6181569").PN.  | USPAT   | 2003/11/30<br>15:48 |
| -           | 12   | (("6146743") or ("6410960") or<br>("6028990")).PN.  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/11/29<br>17:35 |
| -           | 2674 | 257/758-759.ccls.   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/11/29<br>17:36 |
| -           | 3445 | 257/778   | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/11/29<br>17:36 |

| -        | 5722    | 257/787-796.ccls.   | USPAT;    | 2003/11/29 |
|----------|---------|---|-----------|------------|
| 1        |         |   | US-PGPUB; | 17:39      |
| Ì        |         |   | EPO; JPO; | ì          |
| }        | )       |   | DERWENT;  | ì          |
| Ì        | }       |   | IBM_TDB   |            |
| l -      | 3       | 257/758-759.ccls. and 257/778 and   | USPAT;    | 2003/11/29 |
| l        |         | 257/787-796.ccls.   | US-PGPUB; | 17:41      |
|          |         |   | EPO; JPO; |            |
| l .      | ĺ       |   | DERWENT;  |            |
| į.       | (       |   | IBM_TDB   | ,          |
| <u> </u> | 3040005 | @-4- 20000020 @4-4- 20000020  |           | 2002/11/20 |
| -        | 2919085 | @ad>20000828 @rlad>20000828   | USPAT;    | 2003/11/29 |
| 1        | )       | @pt1d>20000828  | US-PGPUB; | 17:41      |
| 1        | )       |   | EPO; JPO; | )          |
| ]        | ]       |   | DERWENT;  |            |
|          |         |   | IBM_TDB   |            |
| -        | 3       | (257/758-759.ccls. and 257/778 and  | USPAT;    | 2003/11/29 |
|          |         | 257/787-796.ccls.) not (@ad>20000828  | US-PGPUB; | 17:43      |
| 1        |         | @rlad>20000828 @pt1d>20000828)  | EPO; JPO; |            |
| 1        | 1       | ·   | DERWENT;  |            |
| 1        |         |   | IBM_TDB   |            |
| 1 -      | 2152    | 257/737,738.ccls.   | USPAT;    | 2003/11/29 |
| ]        | )       |   | US-PGPUB; | 17:44      |
| Į.       |         |   | EPO; JPO; |            |
|          | ĺ       |   | DERWENT;  |            |
|          | ĺ       |   | IBM_TDB   |            |
|          | 72      | 257/778 and 257/758-759.ccls.   | USPAT;    | 2003/11/29 |
| 1        | / 2     | 237/776 and 237/736 733.cci3.   | US-PGPUB; | 17:45      |
| )        |         |   | EPO; JPO; | 17.43      |
| }        |         |   | DERWENT;  | j          |
|          |         |   |           | [ [        |
| ļ        | 4565    | intonno   | IBM_TDB   | 7002/11/20 |
| -        | 4565    | interposer  | USPAT;    | 2003/11/29 |
|          |         |   | US-PGPUB; | 17:53      |
|          | }       |   | EPO; JPO; | }          |
|          |         |   | DERWENT;  | )          |
|          |         |   | IBM_TDB   |            |
| -        | 313     | interposer and 257/778  | USPAT;    | 2003/11/29 |
| Į.       | [       |   | US-PGPUB; | 17:53      |
| 1        |         |   | EPO; JPO; |            |
| }        |         |   | DERWENT;  |            |
| }        | 1       |   | IBM_TDB   | }          |
| -        | 305     | (interposer and 257/778) not ((257/778 and  | USPAT;    | 2003/11/29 |
| i        |         | ((257/758 257/759).CCLS.)) not  | US-PGPUB; | 17:54      |
| ì        |         | (@ad>20000828 @rlad>20000828  | EPO; JPO; |            |
|          |         | @pt1d>20000828))  | DERWENT;  |            |
|          |         | , ,   | IBM_TDB   |            |
| -        | 52      | (257/778 and 257/758-759.ccls.) not   | USPAT;    | 2003/11/30 |
| {        |         | (@ad>20000828 @rlad>20000828  | US-PGPUB; | 14:08      |
| 1        |         | @pt1d>20000828)   | EPO; JPO; |            |
| 1        |         |   | DERWENT;  |            |
| 1        |         |   | IBM_TDB   |            |
| 1_       | 195     | ((interposer and 257/778) not ((257/778 and   | USPAT;    | 2003/11/29 |
| [ -      | 193     | ((11terposer and 257/776) Not ((257/776 and (257/776)) ((257/758)257/759).CCLS.)) not | US-PGPUB; | 17:56      |
| (        |         | ((257/758 257/759).CCLS.))  |           | 17.30      |
| 1        |         |   | EPO; JPO; |            |
| }        |         | @pt1d>20000828))) not (@ad>20000828   | DERWENT;  |            |
| }        | 176004  | @rlad>20000828 @pt1d>20000828)  | IBM_TDB   | 2002/11/20 |
| -        | 176981  | encapsul\$  | USPAT;    | 2003/11/29 |
| 1        |         |   | US-PGPUB; | 17:56      |
| l        |         |   | EPO; JPO; |            |
| (        |         |   | DERWENT;  |            |
| l        |         |   | IBM_TDB   |            |

| -          | 104         | (((interposer and 257/778) not ((257/778 and  | USPAT;    | 2003/11/29 |
|------------|-------------|---|-----------|------------|
|            |             | ((257/758 257/759).CCLS.)) not                | US-PGPUB; | 17:56      |
| }          |             | (@ad>20000828 @rlad>20000828                  | EPO; JPO; |            |
|            |             | @pt1d>20000828))) not (@ad>20000828           | DERWENT;  | }          |
|            | 1           | @rlad>20000828 @pt1d>20000828)) and           | IBM_TDB   | i          |
|            |             | encapsul\$                                    | 15.1_155  | i          |
| _          | 6           | ("3871015"   "4426773"   "5266833"            | USPAT     | 2003/11/29 |
| ] -        | 0           |   | USPAT     |            |
|            | [           | "5450283"   "5612575"   "RE36773").PN.        |           | 18:07      |
| -          | 6           | ("3871015"   "4426773"   "5266833"            | USPAT     | 2003/11/29 |
| ļ .        |             | "5450283"   "5612575"   "RE36773").PN.        |           | 18:09      |
| ļ <b>-</b> | 11          | ("4604644"   "4825284"   "4970575"            | USPAT     | 2003/11/29 |
| İ          |             | "4987100"   "5107325"   "5177669"             |           | 18:10      |
| }          |             | "5222014"   "5239198"   "5249101"             |           |            |
| }          |             | "5291062"   "5311402").PN.                    |           | 1          |
| _          | 23          | ("3118016"   "3469684"   "3777220"            | USPAT     | 2003/11/29 |
| 1          |             | "3969754"   "4052787"   "4189524"             |           | 18:12      |
|            |             | "4231154"   "4396457"   "4413308"             |           | 1          |
| Ì          |             | "4420767"   "4480288"   "4489923"             |           | ]          |
|            |             | "4509096"   "4591659"   "4626805"             |           | (          |
| į .        |             |   |           | (          |
| ļ.         |             | "4640866"   "4681654"   "4716124"             |           | {          |
|            |             | "4755417"   "4774127"   "4791239"             |           | {          |
| <b>\</b>   |             | "4791248"   "4810563").PN.                    |           | 2002/44/22 |
| -          | 11          | ("5258648"   "5450283"   "5468681"            | USPAT     | 2003/11/29 |
|            |             | "5535101"   "5598036"   "5629566"             |           | 18:20      |
| j          |             | "5703406"   "5786271"   "5796590"             | 1         |            |
|            | }           | "5977632"   "5990546").PN.                    | •         |            |
| -          | 4           | ("5222014"   "5311059"   "5450283"            | USPAT     | 2003/11/29 |
| į .        |             | "5535101").PN.                                | ļ         | 18:34      |
| -          | 22          | 5990546.URPN.                                 | USPAT     | 2003/11/29 |
|            |             |   |           | 18:34      |
| _          | 8           | ("4136356"   "5332922"   "5821624"            | USPAT     | 2003/11/29 |
|            |             | "5949135"   "5990546"   "6080931"             | OSFAI     | 19:22      |
|            |             |   | ł         | 15.22      |
|            |             | "6188127"   "6278616").PN.                    | LICDAT    | 2002/11/20 |
| -          | 14          | ("4703483"   "5109320"   "5323060"            | USPAT     | 2003/11/29 |
|            |             | "5399898"   "5401672"   "5434453"             | Ì         | 19:27      |
| Į .        | [           | "5446247"   "5495394"   "5541449"             |           | [          |
| į          |             | "5563773"   "5576519"   "5600541"             | l         | l .        |
|            | İ           | "5760478"   "5790384").PN.                    |           |            |
| -          | 47          | 5977640.URPN.                                 | USPAT     | 2003/11/29 |
|            |             |   |           | 19:29      |
| -          | 15          | ("3577037"   "5347162"   "5438224"            | USPAT     | 2003/11/29 |
| j          |             | "5468681"   "5477160"   "5483421"             |           | 20:01      |
| 1          |             | "5759047"   "5786628"   "5815374"             | 1         |            |
| ]          |             | "5918113"   "5958590"   "5965064"             | 1         |            |
| Į.         | į           | "5977640"   "5984691"   "6013948").PN.        |           |            |
| _          | 6           | ("5118370"   "5120665"   "5323051"            | USPAT     | 2003/11/29 |
| -          | ١           | "5352318"   "5604160"   "5661042").PN.        | 33171     | 20:04      |
| 1          | 6           | ("5118370"   "5120665"   "5323051"            | USPAT     | 2003/11/29 |
| \ _        | 0           |   | USPAT     |            |
| 1          |             | "5352318"   "5604160"   "5661042").PN.        | LICDAT    | 20:17      |
| ) -        | 14          | ("4703483"   "5109320"   "5323060"            | USPAT     | 2003/11/29 |
| 1          |             | "5399898"   "5401672"   "5434453"             | 1         | 20:24      |
| 1          | ]           | "5446247"   "5495394"   "5541449"             | 1         | 1          |
| ]          | ]           | "5563773"   "5576519"   "5600541"             |           |            |
|            | [           | "5760478"   "5790384").PN.                    | 1         |            |
| -          | 4370        | interposer not (((interposer and 257/778) not | USPAT;    | 2003/11/29 |
|            |             | ((257/778 and ((257/758 257/759).CCLS.)) not  | US-PGPUB; | 20:28      |
| }          |             | (@ad>20000828 @rlad>20000828                  | EPO; JPO; |            |
| }          |             | @pt1d>20000828))) not (@ad>20000828           | DERWENT;  |            |
| }          |             | @rlad>20000828 @pt1d>20000828))               | IBM_TDB   |            |
|            | <del></del> |   |           | <u> </u>   |

|   | 1340025 |  |   | 1 2002 (4.4 (22     |
|---|---------|--|---|---------------------|
| - | 1743260 | semiconductor integrated adj circuit ic  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;            | 2003/11/29<br>20:29 |
| - | 2833    | (interposer not (((interposer and 257/778) not ((257/778 and ((257/758 257/759).CCLS.)) not (@ad>20000828 @rlad>20000828 @pt1d>20000828 @rlad>20000828 @pt1d>20000828 (semiconductor integrated adj circuit ic)  | IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB     | 2003/11/29<br>20:29 |
| - | 634395  | bump ball  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/11/29<br>20:29 |
| - | 1840    | ((interposer not (((interposer and 257/778) not ((257/778 and ((257/758 257/759).CCLS.)) not (@ad>20000828 @rlad>20000828 @pt1d>20000828 @rlad>20000828 @rlad>20000828 @pt1d>20000828))) and (semiconductor integrated adj circuit ic)) and (bump ball)  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/11/29<br>20:29 |
| - | 775     | (((interposer not (((interposer and 257/778) not ((257/778 and ((257/758 257/759).CCLS.)) not (@ad>20000828 @rlad>20000828 @pt1d>20000828 @rlad>20000828 @rlad>20000828 @pt1d>20000828))) and (semiconductor integrated adj circuit ic)) and (bump ball)) not (@ad>20000828 @rlad>20000828 @pt1d>20000828  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/11/29<br>20:30 |
| - | 230     | ((((interposer not (((interposer and 257/778) not ((257/778 and ((257/758 257/759).CCLS.)) not (@ad>20000828 @rlad>20000828 @pt1d>20000828 @rlad>20000828 @rlad>20000828 @rlad>20000828 @pt1d>20000828))) and (semiconductor integrated adj circuit ic)) and (bump ball)) not (@ad>20000828 @rlad>20000828 @pt1d>20000828 @rlad>20000828 @pt1d>20000828)) and encapsul\$ | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/11/29<br>20:39 |
| - | 9       | ("4685210"   "4967950"   "4999699"  <br>"5075965"   "5130779"   "5251806"  <br>"5261543"   "5421083"   "5439162").PN.  | USPAT   | 2003/11/29<br>20:36 |
| - | 36      | 5634268.URPN.  | USPAT   | 2003/11/29<br>20:36 |
| - | 332     | 257/758-759.ccls. and (257/737,738.ccls.<br>438/613-617.ccls (bump ball))  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/11/29<br>20:40 |
| - | 176     | (257/758-759.ccls. and (257/737,738.ccls.<br>438/613-617.ccls (bump ball)) ) not<br>(@ad>20000828 @rlad>20000828<br>@pt1d>20000828)  | USPAT;<br>US-PGPUB;<br>EPO; JPO;<br>DERWENT;<br>IBM_TDB | 2003/11/29<br>20:40 |

|   | 172  | ((257/758-759.ccls. and (257/737,738.ccls.                             | USPAT;    | 2003/11/29 |
|---|------|--|-----------|------------|
|   |      | 438/613-617.ccls (bump ball)) ) not                                    | US-PGPUB; | 20:52      |
|   |      | (@ad>20000828 @rlad>20000828   | EPO; JPO; |            |
|   |      | @pt1d>20000828)) not (((((interposer not                               | DERWENT;  |            |
|   |      | (((interposer and 257/778) not ((257/778 and                           | IBM_TDB   |            |
|   | 1    | ((257/758 257/759).CCLS.)) not   | 10(1_100  | 1          |
|   |      | (@ad>20000828 @rlad>20000828   |           |            |
|   |      | @pt1d>20000828))) not (@ad>20000828                                    | 1         | }          |
|   |      | @rlad>20000828 @pt1d>20000828))) and                                   | 1         |            |
|   |      | (semiconductor integrated adj circuit ic)) and                         |           |            |
|   | 1    | (bump ball)) not (@ad>20000828   |           |            |
|   |      | (builip ball))   lot (@au>20000020                                     | 1         | }          |
|   |      | @rlad>20000828 @pt1d>20000828)) and                                    |           |            |
|   | 1    | encapsul\$) (((interposer and 257/778) not                             | Ì         |            |
|   |      | ((257/778 and ((257/758 257/759).CCLS.)) not                           | !         |            |
|   | }    | (@ad>20000828 @rlad>20000828   | }         |            |
|   |      | @pt1d>20000828))) not (@ad>20000828                                    | 1         |            |
|   |      | @rlad>20000828 @pt1d>20000828)))                                       | 11001-    | 2002/44/22 |
| - | 13   | ("4882454"   "5072075"   "5121190"                                     | USPAT     | 2003/11/29 |
|   |      | "5483421"   "5574630"   "5615087"                                      |           | 20:46      |
|   |      | "5661089"   "5798563"   "5838063"                                      |           |            |
|   |      | "5894173"   "5900675"   "5926377"                                      | Ì         |            |
|   |      | "5982630").PN.   |           |            |
| - | 2    | 6351393.URPN.  | USPAT     | 2003/11/29 |
|   | }    |  |           | 20:48      |
| - | 2498 | 257/758-759.ccls. not (((((interposer not                              | USPAT;    | 2003/11/29 |
|   |      | (((interposer and 257/778) not ((257/778 and                           | US-PGPUB; | 20:52      |
|   |      | ((257/758 257/759).CCLS.)) not   | EPO; JPO; |            |
|   |      | (@ad>20000828 @rlad>20000828   | DERWENT;  |            |
|   |      | @pt1d>20000828))) not (@ad>20000828                                    | IBM_TDB   | 1          |
|   |      | @rlad>20000828 @pt1d>20000828))) and                                   | ĺ         |            |
|   | 1    | (semiconductor integrated adj circuit ic)) and                         | 1         |            |
|   |      | (bump ball)) not (@ad>20000828   |           |            |
|   |      | @rlad>20000828 @pt1d>20000828)) and                                    |           |            |
|   | 1    | encapsul\$) (((257/758-759.ccls. and                                   | (         |            |
|   | 1    | (257/737,738.ccls. 438/613-617.ccls (bump                              | 1         |            |
|   |      | ball)) ) not (@ad>20000828 @rlad>20000828                              |           |            |
|   |      | @pt1d>20000828)) not (((((interposer not                               | Ì         |            |
|   |      | (((interposer and 257/778) not ((257/778 and                           | ĺ         |            |
|   | 1    | ((257/758 257/759).CCLS.)) not   | 1         |            |
|   | 1    | (@ad>20000828 @rlad>20000828   | 1         |            |
|   |      | @pt1d>20000828))) not (@ad>20000828                                    | (         |            |
|   |      | @rlad>20000828 @pt1d>20000828))) and                                   |           |            |
|   | 1    | (semiconductor integrated adj circuit ic)) and                         | 1         |            |
|   | 1    | (bump ball)) not (@ad>20000828   |           |            |
|   |      | @rlad>20000828 @pt1d>20000828)) and                                    |           |            |
|   |      | encapsul\$) (((interposer and 257/778) not                             |           |            |
|   |      | ((257/778 and ((257/758 257/759).CCLS.)) not                           |           |            |
|   |      | ((23//738 23//738 23//739).CCL3.)) Not<br>(@ad>20000828 @rlad>20000828 | 1         |            |
|   |      | @pt1d>20000828 @Had>2000828  | 1         |            |
|   | 1    | @rlad>20000828)))  | !         |            |
|   |      | @11gu>20000020 @pt.tu>20000020)))))                                    | L         | L          |

| ((interposer and 257/778) not (257/758) CIS-7) not (257/758) CIS-7) not (2637/58) (257/759) CIS-7) not (2637/58) (257/759) CIS-7) not (2637/58) (257/759) CIS-7) not (2637/58) (257/59) (257/78) not (257/788) not (257/788) not (257/788) not (257/788) (257/759) (255.9) not (2634-20000828) (257/788) (257/759) (255.9) not (2634-2000828)) not (257/788) (257/759) (255.9) not (2634-2000828)) (257/788) (257/759) (255.9) not (2634-2000828)) (257/788) (257/759) (255.9) not (2634-2000828)) (257/788) (257/759) (255.9) not (2634-2000828)) (257/788) (257/759) (255.9) not (2634-2000828)) (257/788) (257/759) (255.9) not (2634-2000828)) (257/788) (257/789) (255.  |     |      |  |           | · · · · · · · · · · · · · · · · · · · |
|---|-----|------|--|-----------|---------------------------------------|
| ((257/758)257/759).CCLS.)) not (@ad-20000828 @ptid->20000828)) not (@ad-20000828)   | -   | 1706 | (257/758-759.ccls. not ((((((interposer not    |           |                                       |
| (@ads-20000828 @pitad>20000828 @pitad>20000828 @pitad>20000828)   not (@ads-20000828 @pitad>20000828)   not (@ads-20000828)   not (@ads-20000828)   not (@ads-20000828)   not (@ads-20000828)   not (@ads-20000828)   not (@ads-20000828)   not ((@interposer not ((interposer and 257/778) not (257/778 and (257/759).CCLS.)   not (@ads-20000828 @pitad>20000828   mot ((interposer not ((interposer and 257/778) not (257/778 and (257/759).CCLS.))   not (@ads-20000828 @pitad>20000828   mot (257/778)   not (257/778 and (257/778)   not (@ads-20000828)   not (@ads-20000828)   not (@ads-20000828)   not (@ads-20000828)   not (@ads-20000828)   not (@ads-20000828)   not ((interposer and 257/778)   not ((interposer and ((interposer and 257/778)   not ((interposer and (interposer and 257/778)   not ((interpos  |     |      |  | US-PGPUB; | 20:53                                 |
| (@ads-20000828 @pitad>20000828 @pitad>20000828 @pitad>20000828)   not (@ads-20000828 @pitad>20000828)   not (@ads-20000828)   not (@ads-20000828)   not (@ads-20000828)   not (@ads-20000828)   not (@ads-20000828)   not (@ads-20000828)   not ((@interposer not ((interposer and 257/778) not (257/778 and (257/759).CCLS.)   not (@ads-20000828 @pitad>20000828   mot ((interposer not ((interposer and 257/778) not (257/778 and (257/759).CCLS.))   not (@ads-20000828 @pitad>20000828   mot (257/778)   not (257/778 and (257/778)   not (@ads-20000828)   not (@ads-20000828)   not (@ads-20000828)   not (@ads-20000828)   not (@ads-20000828)   not (@ads-20000828)   not ((interposer and 257/778)   not ((interposer and ((interposer and 257/778)   not ((interposer and (interposer and 257/778)   not ((interpos  |     |      | ((257/758 257/759).CCLS.)) not                 | EPO; JPO; | (                                     |
| ### ### ### ### ### ### ### ### ### ##  |     | 1    | (@ad>20000828 @rlad>20000828                   |           | }                                     |
| @riad>20000828 @ptid>20000828)) and (semiconductor integrated adj circuit ict) and (bump ball)) not (@ad>20000828) and encapsuls) (((257/758-759.cds. and (257/737,738.cds.cds. 348/613-617.cds (bump ball)) not (@ad>20000828 @ptid>20000828 @ptid>    | 1   | )    |  |           |                                       |
| (semiconductor integrated adj circuit (c)) and (bump ball)) not (@ad+20000828) and encapsuls) ((1257/758-759.cds. and (257/737,738.cds. 438/613-617.cds (bump ball)) not (@ad+20000828) and encapsuls) ((1257/758) not ((1257/758) and (257/758) and (257/758) not ((1257/758) and (257/758) and (257/758) not (1257/758) and (12  |     |      |  |           |                                       |
| (bump bally) not (@ad>20000828) and encapsuls) (((257/758-759.ccls. and (257/737.128 acls. 438/613-617.ccls (bump ball)) not (@ad>20000828 @ptad>20000828 @p  |     | }    |  | ŀ         | {                                     |
| @riad>20000828 @ptid>20000828) and encapsuls) (((257/737,738.cds. 438/613-617.cds (bump ball)) not (@ad>20000828 @ptid>20000828   @ptid>20000828) not ((((((interposer not (((interposer and 257/778) not ((257/758) and ((257/758) 257/759).CCLS.)) not (((((257/758) 257/759).CCLS.)) not (((((257/758) 257/759).CCLS.)) not (((((257/758) 257/759).CCLS.))) not (((((257/758) 257/759).CCLS.))) not ((((((257/758) 257/759).CCLS.))) not (((((((((((((((((((((((((((((((((((   |     | }    |  | -         |                                       |
| encapsul\$) (((257/788-759.ccls. and (257/737),788.ccls. 438/613-617.ccls (bump ball)) ) not (@ad>20000828 @had>20000828 @ptid>20000828) not ((((((interposer not ((((interposer and 257/778) not ((257/758) and ((257/758)257/759).CCLS.)) not (@ad>20000828 @ptid>20000828 @ptid>   |     | 1    |  | 1         | ]                                     |
| (257/737,738,ccis. 438/613-617.ccis (bump ball))  |     |      |  | ļ         |                                       |
| bally   |     | 1    |  | <b>\</b>  |                                       |
| @ptid>20000828)   not ((((((interposer not (((interposer and 257/778) not ((257/778 and ((257)778 and ((257)778 and ((257)778 and ((257)778 and ((257)758) cCLS.)) not ((257)78 and ((257)758) cDCLS.)) not ((257)708 and ((257)728 and ((257)728) and ((257)728 and ((257)728) and ((257)728 and ((257)728) and ((257)728) and ((257)728 and ((257)728) and ((257)737) and ((257)758) and ((257)737) and ((257)738) and ((257)737) and ((257)738) and ((257)737) and     |     | 1    |  |           | <b>i</b>                              |
| ((((interposer and 257/778) not ((257/78 and ()(257/758) 1527/759). CCLS.)) not (@ad>20000828 @ptid>20000828 @ptid>2000828 @ptid>20000828 @pt  |     | l    |  | l         |                                       |
| ((257/758)257/759).CCLS.)) not (@ad>20000828 @had>20000828 @ptid>20000828 @ptid>20000828)) not (@ad>20000828 @rida>20000828 @ptid>20000828)) not (@ad>20000828 @rida>20000828 @ptid>20000828) @rida>20000828 @ptid>20000828) and encapsuls) (((interposer and 257/778) not ((257/778 and ((257/58)257/59).CCLS.)) not (@ad>20000828 @ptid>20000828 @ridad>20000828 @ptid>20000828 @ptid>20000828 @ridad>20000828 @ptid>20000828  ptid>2003/11/29  20:54  EPO; JPO; JPO; JPO; JPO; JPO; JPO; JPO; JPO;  |     | ,    |  |           |                                       |
| (@ad>20000828 @ptd>20000828<br>@ptd>20000828 @ptd>20000828)) and<br>(semiconductor integrated ad picruit ic)) and<br>(bump ball)) not (@ad>20000828)) and<br>encapsuls) ((interposer and 257/778) not<br>(@ad>20000828 @ptd>20000828)) and<br>encapsuls) ((interposer and 257/778) not<br>(@ad>20000828 @ptd>20000828))) not<br>(@ad>20000828 @ptd>20000828))) not<br>(@ad>20000828 @ptd>20000828))))) not<br>(@ad>20000828 @ptd>20000828))))) not<br>(@ad>20000828 @ptd>20000828))))) not<br>(@ad>20000828 @ptd>20000828))) not<br>((257/778 and ((257/758]257/759).CCLS.))<br>not ((267/778 and ((257/758]257/759)).CCLS.)))<br>not (@ad>20000828 @ptd>20000828<br>@ptd>20000828 @ptd>20000828<br>@ptd>20000828))) not (@ad>20000828<br>@ptd>20000828 @ptd>20000828)) DERWENT;<br>IBM_TDB<br>(semiconductor integrated adj circuit ic)) and<br>(bump ball)) not (@ad>20000828)<br>@ptd>20000828 @ptd>20000828)) and<br>(257/737,738.ccls. 438/613-617.ccls. (bump<br>ball))<br>- 2 ("5231751"   "5677045").PN. USPAT 2003/11/29<br>20:58<br>9 ("4483067"   "5606171"   "5490324"   USPAT 2003/11/29<br>21:14<br>- "5731231"   "5753535"   "5756379"   "5755380"   "5892271"   "5953592"   "6140707"   "6232650").PN. USPAT 2003/11/29<br>21:15<br>- "6304689"   "55172303"   "5239198"   USPAT 2003/11/29<br>21:26<br>- 11 ("4722470"   "5502435").PN. USPAT 2003/11/29<br>21:27<br>- "5104688"   "5279916"   "5350947"   "5431863"   "547611"   "5602059"   "5602419"   "5608405").PN. USPAT 2003/11/29<br>21:36<br>- 5608405.URPN. USPAT 2003/11/29<br>21:36  |     | }    |  |           | 1                                     |
|   |     | 1    |  | İ         |                                       |
| @rlad>20000828 @pt1d>20000828)) and (semiconductor integrated add circuit ict) and (bump ball)) not (@ad>20000828   @rlad>20000828   @rlad>2    |     | Į.   |  |           | 1                                     |
| (semiconductor integrated adj circuit ic)) and (bump ball)) not (@ad>20000828 @rlad>20000828 @rlad>2000828 @rlad>2003/11/29 21:14 20:55 21:14 20:55 21:14 20:55 21:14 20:55 21:14 20:55 21:15 20:55 21:15 20:55 2  |     | }    | @pt1d>20000828))) not (@ad>20000828            |           |                                       |
| (bump ball)) not (@ad>2000828 @ptid>20000828)) and encapsul\$) (((interposer and 257/778) not ((257/778) and ((257/758)257/759).CCLS.)) not (@ad>20000828 @ptid>20000828 @pt |     |      | @rlad>20000828 @pt1d>20000828))) and           | 1         |                                       |
| @rlad>20000828 @pt1d>20000828) and encapsul\$) (((interposer and 257/778) not ((257/778) and ((257/758)257/759).CCLS.)) not (@ad>20000828 @ptid>20000828 @p   |     | l    | (semiconductor integrated adj circuit ic)) and |           | ]                                     |
| @rlad>20000828 @pt1d>20000828) and encapsul\$) (((interposer and 257/778) not ((257/778) and ((257/758)257/759).CCLS.)) not (@ad>20000828 @ptid>20000828 @p   |     |      | (bump ball)) not (@ad>20000828                 | }         |                                       |
| encapsuis) (((interposer and 257/778) not ((257/778 and ((257/758 257/759).CCLS.)) not ((@ad>20000828 @ptid>20000828 @ptid>200  |     | l    |  | }         |                                       |
| ((257/778 and ((257/758 257/759).CCLS.)) not (@ad>20000828 @ptald>20000828 @pt  | 1   | Į.   |  | Ì         | ]                                     |
| (@ad>>20000828 @rlad>20000828   |     | (    |  |           |                                       |
| ### Pittd > 20000828  |     |      |  |           | i                                     |
| @rlad>20000828 @rlad>20000828)))))) not (@ad>20000828 @rlad>20000828  |     | Ì    |  | į         | l l                                   |
| (@ad>20000828 @riad>20000828  | 1   | ĺ    |  |           | ļ                                     |
| ### Company of the co  | 1   | }    |  |           | ł i                                   |
| - 775 ((((interposer and 257/778) not ((257/758 and (257/758) CCLS.)) not ((257/758 and ((257/758) CCLS.)) not ((267/758 and ((257/758) CCLS.)) not ((264/20000828 @ptd-20000828 ) and ((257/737,738, ccls. 438/613-617, ccls. (bump ball))  - 2 ("5231751"   "5677045").PN. USPAT 2003/11/29 20:58  - 9 ("4483067"   "5063171"   "5490324"   USPAT 2003/11/29 21:14 "57536380"   "5834336"   "5874784").PN.  - 7 5953592.URPN. USPAT 2003/11/29 21:15  - 7 ("5604379"   "5672912"   "5874784"   USPAT 2003/11/29 21:17 "6232650").PN. USPAT 2003/11/29 21:17 "6232650").PN. USPAT 2003/11/29 21:28 "5281151"   "5521435").PN. USPAT 2003/11/29 21:28 "5281151"   "5521435").PN. USPAT 2003/11/29 21:28 "5903/11/29 21:28 "5504888"   "5229916"   "5359947"   USPAT 2003/11/29 21:36 "5431863"   "5668405").PN. USPAT 2003/11/29 21:36 "5602419"   "5668405").PN. USPAT 2003/11/29 21:36 "5431863"   "5529916"   "5350947"   USPAT 2003/11/29 21:36 "5431863"   "5668405").PN. USPAT 2003/11/29 21:37   | 1   |      | ) `  | 1         |                                       |
| not ((257/778 and ((257/758)257/759), CCLS.))   us-PGPUB;   20:54     not (@ad>20000828 @rlad>20000828   EPO; JPO;   DERWENT;   @rlad>20000828   DERWENT;   BM_TDB     (semiconductor integrated adj circuit ic)) and ((bump ball)) not (@ad>20000828   BM_TDB     (virtual virtual     | _   | 775  |  | USPAT.    | 2003/11/29                            |
| not (@ad>20000828 @rlad>20000828  |     | 1    |  | ,         |                                       |
| @ptid>20000828 @ptid>20000828   |     | į    |  |           | 1 20.3 !                              |
| Griad>2000828 @pt1d>2000828))) and (semiconductor integrated adj circuit ic)) and (bump ball)) not (@ad>2000828 @pt1d>2000828 @riad>2000828 @pt1d>2000828)) and (257/737,738.ccls. 438/613-617.ccls. (bump ball))   | 1   |      |  |           | ļ                                     |
| (semiconductor integrated adj circuit ic)) and (bump ball)) not (@ad>20000828 @pt1d>20000828) and (257/737,738.ccls. 438/613-617.ccls. (bump ball))       USPAT 2003/11/29 20:58 20:59 20:58 20:58 20:59 20:58 20:58 20:59 20:58 20:59 20:58 20:59 20:58 20:58 20:59 20:58 20:58 20:59 20:58 20:58 20:59 20:58 20:59 20:58 20:59 20:58 20:59 20:58 20:59 20:58 20:59 20:59 20:58 20:59  | 1   |      |  | ,         | }                                     |
| (bump ball)) not (@ad>20000828  | 1   |      |  | 10/1_100  | į                                     |
| @rlad>20000828 @pt1d>20000828)) and (257/737,738.ccls. 438/613-617.ccls. (bump ball))   |     |      |  | ļ         | ļ                                     |
| (257/737,738.ccls. 438/613-617.ccls. (bump ball))   | }   | }    |  |           |                                       |
| - 2 ("5231751"   "5677045").PN. USPAT 2003/11/29 20:58 - 9 ("4483067"   "5063171"   "5490324"   USPAT 2003/11/29 21:14 - "5731231"   "5753535"   "5756379"   21:14 - 7 5953592.URPN. USPAT 2003/11/29 21:15 - 7 ("5604379"   "5672912"   "5874784"   USPAT 2003/11/29 21:15 - 7 ("5604379"   "5953592"   "6140707"   21:17 - "6232650").PN 5 ("4710798"   "5172303"   "5239198"   USPAT 2003/11/29 21:28 - 15 5672912.URPN. USPAT 2003/11/29 21:28 - 11 ("4722470"   "5029325"   "5083191"   USPAT 2003/11/29 21:29 - 11 ("4722470"   "5029325"   "5083191"   USPAT 2003/11/29 21:36 - "5431863"   "5477611"   "5602059"   "5602419"   "5668405").PN 61 5668405.URPN. USPAT 2003/11/29 21:37 - 24 5029325.URPN. USPAT 2003/11/29  | 1   | 1    |  |           | 1                                     |
| - 2 ("5231751"   "5677045").PN. USPAT 2003/11/29 20:58 - 9 ("4483067"   "5063171"   "5490324"   USPAT 2003/11/29 "5731231"   "5755353"   "5756379"   21:14 - "5756380"   "5834336"   "5874784").PN. USPAT 2003/11/29 21:15 - 7 ("5604379"   "5672912"   "5874784"   USPAT 2003/11/29 "5892271"   "5953592"   "6140707"   21:17 - "6232650").PN 5 ("4710798"   "5172303"   "5239198"   USPAT 2003/11/29 "5281151"   "5521435").PN. USPAT 2003/11/29 21:28 - 15 5672912.URPN. USPAT 2003/11/29 21:29 - 11 ("4722470"   "5029325"   "5083191"   USPAT 2003/11/29 "5104688"   "5229916"   "5350947"   21:36 - "5602419"   "5668405.URPN. USPAT 2003/11/29 21:37 - 24 5029325.URPN. USPAT 2003/11/29   | 1   |      |  |           |                                       |
| - 9 ("4483067"   "5063171"   "5490324"   USPAT 2003/11/29 "5731231"   "5755355"   "5576379"   21:14 "5756380"   "5834336"   "5874784").PN.  - 7 5953592.URPN. USPAT 2003/11/29 21:15  - 7 ("5604379"   "5672912"   "5874784"   USPAT 2003/11/29 21:15 "5892271"   "5953592"   "6140707"   21:17 "6232650").PN.  - 5 ("4710798"   "5172303"   "5239198"   USPAT 2003/11/29 21:28 "5281151"   "5521435").PN.  - 15 5672912.URPN. USPAT 2003/11/29 21:28 "5672912"   "5029325"   "5083191"   USPAT 2003/11/29 21:29 "5104688"   "5229916"   "5350947"   "5602419"   "5668405").PN.  - 61 5668405.URPN. USPAT 2003/11/29 21:37 "5029325.URPN. USPAT 2003/11/29 21:37 24 5029325.URPN. USPAT 2003/11/29  | 1_  | 2    |  | LICOAT    | 2003/11/20                            |
| - 9 ("4483067"   "5063171"   "5490324"   USPAT 2003/11/29 21:14 "5731231"   "5753535"   "5756379"   21:14 "5756380"   "5834336"   "5874784").PN.  - 7 5953592.URPN. USPAT 2003/11/29 21:15  | 1   | 2    | ( 2521/21   20//042 )'AM'                      | USPAI     | ,                                     |
| "5731231"   "5753535"   "5756379"   | 1   | _    | ("4492067"   "E062474"   "E400224"             | LICDAT    |                                       |
| - 7   5756380"   "5834336"   "5874784").PN.   USPAT   2003/11/29   21:15   2003/11/29   21:15   2003/11/29   21:15   2003/11/29   21:15   2003/11/29   21:17   2003/11/29   21:17   2003/11/29   21:17   2003/11/29   21:17   2003/11/29   21:17   2003/11/29   21:28   2003/11/29   21:28   2003/11/29   21:28   2003/11/29   21:28   2003/11/29   21:29   21:29   21:36   2003/11/29   21:36   2003/11/29   21:36   2003/11/29   21:36   2003/11/29   21:36   2003/11/29   21:37   2003/11/29   21:37   24   5029325.URPN.   USPAT   2003/11/29   21:37   2003/11/29   20:30   20:3  | 1 - | 9    |  | USPAT     |                                       |
| - 7   5953592.URPN.   USPAT   2003/11/29   21:15  | 1   |      |  |           | 21:14                                 |
| - 7 ("5604379"   "5672912"   "5874784"   USPAT 2003/11/29   | Į.  | _    |  | LICDAT    | 2002/11/20                            |
| - 7 ("5604379"   "5672912"   "5874784"   USPAT 2003/11/29 21:17 "5892271"   "5993592"   "6140707"   21:17 "6232650").PN.  - 5 ("4710798"   "5172303"   "5239198"   USPAT 2003/11/29 21:28 "5281151"   "5521435").PN.  - 15 5672912.URPN. USPAT 2003/11/29 21:29 "11 ("4722470"   "5029325"   "5083191"   USPAT 2003/11/29 21:29 "5104688"   "5229916"   "5350947"   "5431863"   "5477611"   "5602059"   "5602419"   "5668405").PN.  - 61 5668405.URPN. USPAT 2003/11/29 21:37 24 5029325.URPN. USPAT 2003/11/29   | } ~ |      | SYSSSYZ.UKPN.                                  | USPAT     | 1 ' ' 1                               |
| "5892271"   "5953592"   "6140707"   | 1   | _    | (11560427011   11567704211   11507470411       | LICRAT    |                                       |
| "6232650").PN.  | \ - | 7    |  | USPAT     | 1 1                                   |
| - 5 ("4710798"   "5172303"   "5239198"   USPAT 2003/11/29 21:28 21:28 21:28 21:28 21:29 21:29 21:29 21:29 21:36 21:36 21:36 21:36 21:36 21:36 21:36 21:37 24 5029325.URPN. USPAT 2003/11/29 21:37 2003/11/29 21:37 2003/11/29 21:37   | 1   |      |  |           | 21:1/                                 |
| - 15   "5281151"   "5521435").PN.   21:28   2003/11/29   21:29   21:29   21:29   21:29   21:36   2003/11/29   21:36   2003/11/29   21:36   2003/11/29   21:36   2003/11/29   21:36   2003/11/29   21:36   2003/11/29   21:37   24   5029325.URPN.   USPAT   2003/11/29   21:37   24   5029325.URPN.   USPAT   2003/11/29   20  | 1   | _    |  |           |                                       |
| - 15   5672912.URPN.   USPAT   2003/11/29   21:29   21:29   21:29   21:29   21:36   2003/11/29   21:36   2003/11/29   21:36   2003/11/29   21:36   2003/11/29   21:36   2003/11/29   21:36   2003/11/29   21:37   24   5029325.URPN.   USPAT   2003/11/29   21:37   2003/11/29   21:37   2003/11/29  | -   | 5    | ("4/10/798"   "51/2303"   "5239198"            | USPAT     |                                       |
| - 11 ("4722470"   "5029325"   "5083191"   USPAT 2003/11/29 21:36 203/11/29 21:36 21:37 21:  | }   |      |  |           |                                       |
| - 11 ("4722470"   "5029325"   "5083191"   USPAT 2003/11/29 21:36  | -   | 15   | 5672912.URPN.                                  | USPAT     |                                       |
| "5104688"   "5229916"   "5350947"   21:36   |     |      |  | 1         |                                       |
| "5431863"   "5477611"   "5602059"   "5602419"   "5602419"   "5668405").PN.  - 61 5668405.URPN. USPAT 2003/11/29 21:37  - 24 5029325.URPN. USPAT 2003/11/29  | -   | 11   | ("4722470"   "5029325"   "5083191"             | USPAT     |                                       |
| "5602419"   "5668405").PN.  |     |      |  | ĺ         | 21:36                                 |
| - 61 5668405.URPN. USPAT 2003/11/29 21:37 24 5029325.URPN. USPAT 2003/11/29   |     |      |  | 1         |                                       |
| - 61 5668405.URPN. USPAT 2003/11/29 21:37 24 5029325.URPN. USPAT 2003/11/29   |     |      | "5602419"   "5668405").PN.                     |           |                                       |
| - 24 5029325.URPN. 21:37<br>2003/11/29  | -   | 61   |  | USPAT     | 2003/11/29                            |
|   | 1   | }    |  | į         | 1                                     |
|   | -   | 24   | 5029325.URPN.                                  | USPAT     | 2003/11/29                            |
| <u></u>   |     |      |  |           | 21:39                                 |